

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

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Voluntary Public

Date: 5/3/2013

GAIN Report Number: CH11875

China - Peoples Republic of

Post: Guangzhou

The whey into the South China market

Report Categories:

Dairy and Products

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Report Highlights:

Demand for U.S. whey especially high value whey products is growing thanks to the rapid development of South China's economy and demand for higher protein, improved nutritional awareness, and higher health requirements both by the government and local consumers. Whey protein is the largest dairy product China imported from the United States in 2012 after lactose (\$118 million), whey protein concentrate (\$108 million), dry whey (\$66 million), skim-milk powder (\$42 million) and cheese (\$37 million). This report provides an update to the whey protein product market in Mainland China as well as the latest regulations and export procedures to support greater market growth.

General Information:

The Whey to Growth: Demand for U.S. Whey in South China: Although the 2008 melamine scandal shook consumer confidence in Mainland China, the government's reaction and crisis management was not enough to rescue this sinking industry. Years later China's dairy industry reemerged with new food safety standards to encourage branding and rebuild consumer trust; however, rampant scandals in the food manufacturing industry continue to damage these efforts. Although consumers consider dairy products healthy and nutritious, locally produced items are often avoided by consumers who can afford to purchase imported products-- especially when it comes to **infant formula** purchases. South China consumers tend to make routine trips to Hong Kong in order to purchase infant formula; however, Hong Kong is now strictly enforcing minimum purchase quotas at border crossings in an effort to contain market shortages and price surges that came as result of the deluge of Mainland shoppers.

Whey protein is also used in the **manufacturing of various food products** such as bakery goods, dairy products, nutritional foods and beverages as well as for food supplements and pharmaceuticals. Whey has quickly become an essential ingredient in the food processing industry.

Another consumer of U.S. whey is the **animal feed sector**: mainly incorporated into piglet feedlots. Whey with lower protein contents (2.5-6 percent) are also managed differently by the inspection and quarantine authorities and thus use a separate sanitary standard. Among all whey protein imports, about half are destined for the animal feed sector. Pork is one of China's main food staples along with rice and vegetable cooking oil. China is the world's largest pork producer and consumer based on traditional consumer habits.

Trade: Current per capita milk consumption in China is just below 30 kg a year, while the world's average is 89 kg. The difference indicates China has insufficient milk supplies and is reliant on imported product. China's annual milk production is estimated at only 35 million tons, so there is also no scaled commercial cheese production in China yet which creates additional demand for whey product imports. The European Union, Australia, New Zealand, and North America (in this order) are the main suppliers of whey products to China.

The importation of whey and denatured whey products volumes stood respectively at 264,500 tons in 2012, dehydrated lactose, 43,300 tons and whey protein, 11,800 tons.^[i] According to Euromonitor, the application of whey products in multiple processing industries has a highly promising potential. And, as China enters the early stages of cheese production and integrated utilization of whey, manufacturers will continue to rely on imported product to meet demand. For example, South China's Yan Tang Dairy is currently manufacturing its own cheese, but also plans to construct a whey processing plant that can reduce the reliance in imported whey products. In the coming five years, South China will continue to be the largest import region for whey products based the maturity of the local dairy industry, limited supplies, highest national fresh milk price, local consumer demand for all dairy products and higher consumer incomes in the Pearl River Delta than any other megacity region in Mainland China.

South China opportunities: South China includes Guangdong, Guangxi, Fujian, Hainan and Hunan provinces with the largest and most developed food processing industrial clusters that supplies all of China as well as exports to a number of countries. For example:

- **Shantou City**, Guangdong Province's Eastern special economic zone houses South China's largest baby formula manufacturer- YaShiLi and is also the headquarters over 2,000 snack food manufacturers many of which have national distribution channels.
- **Xiamen** is known for a baking industry hub as it home to the top five largest bakery chains in South China, including Sunmile Bakery with over 400 franchise outlets nationwide.
- **Hunan** Province is the largest piglet and pork producer in China with 53.35 million tons of pork in 2012. It is the major pork supplier to Guangdong province.
- **Guangxi** province has South China's largest breeding company Kexinyuan with 12,800 breeding companies that is a major national supplier of livestock breeder genetics stock.

As consumer trends in Mainland China cities move towards healthier diets-- paying closer attention to food safety, high value whey protein will become an essential food ingredient in the processed food sector. According to China Custom statistics (shown in figure 1), approximately ***\$63 million-worth in whey protein imports, accounting for one third of total importation value entered through five of South China's ports*** – Xiamen, Shenzhen, Huangpu, Gongbei, Guangzhou.

Figure 1- China imports of U.S. whey protein (values represented in millions of U.S. dollars)

Source: China Customs

District	2010	2011	2012	11/12 %change
-- All Districts --	121.80541	189.6274	212.020889	11.81
Shanghai	39.166459	52.39407	61.772376	17.9
Tianjin	36.761474	54.98252	54.597621	-0.7
Huangpu	18.056535	33.42223	42.185407	26.22
Xiamen	10.448663	10.68267	11.729234	9.8
Dalian	4.138856	5.74887	11.341749	97.29
Qingdao	4.135828	11.20035	10.724128	-4.25
Shenzhen	3.051216	6.295429	7.512332	19.33
Hangzhou	3.487007	8.830378	6.886131	-22.02
Ningbo	0	0.782675	2.01595	157.57
Gongbei	0	0.131577	1.008914	666.79
Shijiazhuang	0.398692	1.64521	0.62151	-62.22
Beijing	0.315965	0.016399	0.578406	3427.08
Guangzhou	1.345576	2.131786	0.549104	-74.24
Nanjing	0.194553	1.008799	0.498027	-50.63

High domestic milk powder prices: Domestic whey protein prices in Guangzhou are correlated to milk powder prices as whey protein is considered an alternative ingredient used by dairy processors to meet nationally government-mandated protein levels. As milk powder prices increase, dairy manufactures tend to purchase higher amounts of whey protein. Whey protein concentrate, sweet and

desalted, with 40-50 percent protein is the most popular whey product currently used by the processed food industry. It is also an essential item for chocolate, cookies, or ice cream production. In April 2013, market prices respectively for food grade whey protein exceeded \$1,500 and \$950 per ton for feed grade whey protein (according to China Customs statistics). The purchasing of whey protein is a highly technical exercise. According to experts in the dairy processing industry, there is great price sensitivity and many quality requirements (from industrial scale buyers) needed to complete a whey protein deal. However, South China's buyers of whey protein in the food processing industry make periodic purchases about four times a year and in container-sized volumes.

Regulations and export guidance: In January 2013, U.S. and China regulators approved a dairy certificate that would ensure that the flow of U.S. dairy products to the largest dairy importer in the world continue unabated. The Agriculture Marketing Service (AMS) of the U.S. Department of Agriculture (USDA) began issuing certificates for product destined for the China market prior to January 18, 2013. These certificates began to be used in China for shipments after March 20, 2013. The new certificate demonstrates China's market demand for U.S. dairy ingredients. According to the U.S. Dairy Export Council (USDEC), the U.S. dairy export-value to Mainland China could more than double by 2017.

With the United States' availability of whey products, and China's mounting demand for whey products, U.S. exporters can capitalize on the opportunity of gaining entry in this market. U.S. exporters are advised to conduct outreach visits to South China's food manufacturing sector to identify a local import agent that has familiarity with these products. In many cases, larger food processors will serve the dual role of import agent and end-user. The procedures for importing foreign goods are somewhat complicated and with various steps to follow, so we advise you to work with experience importers to assure the procedures run smoothly.

- **U.S. export requirements:** Among other certificates, the main certificate required by U.S. exporters is the Shipper's Export Declaration form. The standards for dry whey provided by USDA are determined on the basis of flavor, physical appearance, bacterial estimate, coliform count (for E. coli testing), milk fat content, moisture and scorched particle content. The physical appearance required to meet U.S. Extra Grade standards includes a uniform color, reasonably free flowing, slight pressure in lumpiness, and practically free of visibly dark particles. Optional tests that are not required by the United States, but may be performed if requested by the receiver of the product including protein content and alkalinity of ash.

- **China import requirements.**

- 1) Commercial invoices
- 2) Bill of lading, phytosanitary certificate
- 3) Veterinary health certificate

4) Packing list and certificate of origin. China also requires that there be a minimum protein level of 7 percent, as well as a benzoic acid-free certificate from the manufacturer. Benzoyl peroxide is not an approved bleaching agent in China, so the manufacturer must prove that the whey protein was not bleached in the processing.

- **Required documents needed from the exporting and importing countries:** Specific

documents that are required include commercial invoices, packing list, certificate of analysis, certificate of origin, which is from the manufacturer and should be notarized by a notary public with a stamp from the chamber of commerce, and an Agricultural Marketing Service (AMS) sanitary certificate.

- **Additional steps for arrival of product:**

- 1) Customs Regulations
- 2) Documentation and compliance,
- 3) Packing and shipping
- 4) Transportation and insurance
- 5) Freight forwarding
- 6) Arrival and release
- 7) Duties and taxes.

The U.S. Agricultural Trade Office Guangzhou is an overseas representative office of the U.S. Department of Agriculture. Our mission is to expand and maintain market access to foreign markets for U.S. agricultural products by removing trade barriers and enforcing U.S. rights under existing trade agreements. We partner with various U.S. industry associations representing a cross-section of the U.S. food and agricultural industry. We also support U.S. agricultural exporters through trade assistances, such as business matchmaking services, trade events, market intelligence reports, chef training & demonstrations, buyer missions, in-store promotions etc.

All of the ATO Guangzhou services are **free of charge** to U.S. agricultural exporters.

^[i] High heat (such as the sustained high temperatures above 72 °C associated with the pasteurization process) denatures whey proteins.